an interlayer spacing (002) between hexagonal carbon layers of at least 3.54 Å and a diffraction angle (2θ) of 25.1 degrees or less, as determined with a diffractometer by an X-ray diffraction method (incident X-Ray: CuKα).

3. (Amended) The nano-scale carbon tubes according to claim 1, each of which has an interlayer spacing (002) between hexagonal carbon layers of at least 3.54 Å, a diffraction angle (2θ) of 25.1 degrees or less, and a 2θ band half-width of at least 3.2 degrees, as determined with a diffractomer by an X-ray diffraction method (incident X-ray: CuKα).

4. (Amended) Amorphous nano-scale carbon tubes according to claim 1, each of which has a straight shape.

5. (Amended) Amorphous nano-scale carbon tubes according to claim 1, each of which has a hollow cylindrical shape or a hollow rectangular prism shape.

6. (Amended) Amorphous nano-scale carbon tubes according to claim 1, each of which has at least one open end.

7. (Amended) The amorphous nano-scale carbon tubes according to claim 1, which are formed on a substrate, a particle or a porous material.

8. (Amended) A gas-storing material comprising an amorphous carbonaceous material containing the amorphous nano-scale carbon tubes according to claim 1.

13. (Amended) A method for producing a carbon material containing amorphous nano-scale carbon tubes according to claim 1, the method comprising subjecting a heat decomposable resin having a decomposition temperature of 200 to 900°C to excitation treatment in the presence of a catalyst comprising a metal powder and/or a metal salt.

27. (Amended) A carbon material containing the amorphous nano-scale carbon tubes according to claim 1.